

Extreme Weather

Hurricanes

Facts

A hurricane is a powerful storm system with a large low-pressure center that produces intense winds and heavy rainfall. A tropical storm is classified as a hurricane once winds go up to 74 miles per hour or higher.

Hurricanes form over a large mass of warm ocean water during the warmer months. The air from the surrounding areas with higher air pressure pushes in to the low-pressure area. Then that “new” air becomes warm and moist and rises, too. As the warm air continues to rise, the surrounding air swirls in to take its place. As the warmed, moist air rises and cools off, the water in the air forms clouds. The whole system of clouds and wind spins and grows, fed by the ocean’s heat and water evaporating from the surface.

Most hurricanes rage harmlessly in the sea.

Hurricane Katrina

Hurricane Katrina peaked as a category 5 hurricane, which is the highest it gets.

Katrina affected over 15 million people in different factors such as economy, evacuations, gas prices or drinking water.

Katrina caused \$81 billion in property damages, but it is estimated that the total economic impact in Louisiana and Mississippi may exceed \$150 billion, earning the title of costliest hurricane ever in US history.

Human Impact

Human impact affects hurricanes by climate change. Mainly with rising sea levels. Hurricanes are starting to form much closer to land due to the rising sea levels they are forming in deeper water, which is now closer to land. The problem this causes is that the hurricane will do more damage because it is forming closer to the land.

Tornadoes

Facts

A tornado is a rapidly spinning tube of air that touches both the ground and a cloud above.

The Fujita Scale is the most common way of measuring the strength of tornadoes. The scale ranges from F0 tornadoes that cause minimal damage through to F5 tornadoes, which cause massive damage.

Most tornadoes have wind speeds less than 161 kilometers per hour. Extreme tornadoes can reach wind speeds of over 483 kilometers per hour.

Most tornadoes travel a few kilometers before exhausting themselves. Extreme tornadoes can travel much further, sometimes over 161 kilometers.

In the southern hemisphere tornadoes usually rotate in a clockwise direction. In the northern hemisphere tornadoes usually rotate in a counterclockwise direction.

The USA averages around 1200 tornadoes every year, more than any other country. The twisters mainly occur in Texas, Kansas, Oklahoma and Florida.

The Tri-State Tornado that travelled through parts of Missouri, Illinois and Indiana in 1925 left a path of destruction over 352 kilometers long. The Tri-State Tornado was the deadliest tornado in US history, killing 695 people.

In 1989 the deadliest tornado ever recorded in the world killed around 1300 people in Bangladesh.

Droughts

Facts

When a place is in a drought, it is dry and hot, often dusty; cracks may appear in the soil, and rivers, lakes, streams, and other sources of water can go dry. A drought means that a place has less precipitation (rain or snow) than normal over a few months or even longer.

The California Drought

Throughout California's history of drought, this is the first time in 15 years that 100% of California is under drought.

Some places in California are feeling the impact of the drought more than others. For instance, the city of Montague, this city has been asked to curtail their water.

Many farmers in California are struggling to keep their crops from drying up.

California's wettest season summer, with high-pressured winds sent all the rain clouds to the Pacific Northwest and Canada.

Human impact

Humans do not affect droughts that much because it is a matter of the winds and how much precipitation happens.

The heat is just a matter of carbon emissions.

Floods

Facts

A flood is the submerging of normally dry land. Floods can take a long time to overflow or a quick moment. It all depends on the rate, how heavy, or how much precipitation there is.

There are many types of ways floods can occur, including, due to overflowing rivers, extreme coastal events, excessive rainfall, and infrastructure failure.

Flash floods are extreme versions of flooding events. They happen quickly without warning occurring with little rainfall. Flash floods are a result of a blockade natural or not breaking and a massive amount of water flows.

Floods can damage bridges, roads, and other transport links

After floods recede the land can be contaminated with hazards materials, such as building debris, fuel, and untreated sewage

The Yellow River

The Yellow river in china has four of the deadliest floods in world history. The floods in 1931 resulted in 1-4 million killed

Human Impact

Cutting trees, polluting, and certain farming can cause flooding

Cutting trees causes flooding because the roots act like dams and by cutting them off they loosen up creating a way for water

Urbanization is the physical growth of natural areas to an urban area. This is result of immigration to existing urban areas. In short urbanization is the growth of cities.

Rise in temperatures melts snow causing a lot of water in rivers resulting in flash or normal floods

Heat Waves

Facts

A heat wave is a prolonged period of excessive heat, often combined with excessive humidity.

Excessive heat is defined as temperatures that hover 10 degrees or more above the average high temperature for the region during summer months, last for an extended period, and often are accompanied by high humidity.

Despite the common perception that hurricanes and tornadoes are the most dangerous weather event, heat waves kill more Americans than any other type of natural disaster.

In the 40-year period from 1936 through 1975, nearly 20,000 people were killed in the United States by the effects of heat and solar radiation.

Human Influence

Heat waves are really linked to climate change and global warming. By us releasing tons of greenhouse gasses into the atmosphere creates the greenhouse effect.